SERVICE ENGINEER

ALBA MODEL 210 BATTERY STRAIGHT THREE

CIRCUIT.—A three-valve battery receiver operating on the usual medium and long-wave bands.

Aerial signals are fed to V1, an H.F. pentode, through an iron-cored H.F. transformer. Three alternative aerial taps are provided, one direct to the top of the primary winding, one to a tap on the primary, and the third through a series condenser to the tapping.

An iron-cored H.F. transformer with reaction, which is fed back from the anode of V2 in the usual manner, couples the signal to V2, a triode.

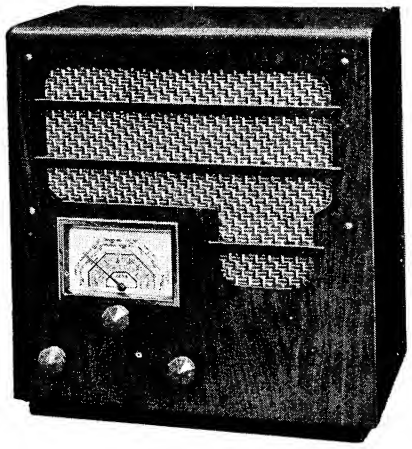
The long-wave sections of both transformers are shorted by switching in the orthodox manner.

Coupling to V3, the output pentode, is through a parallel-fed transformer, the amplified output of V3 being passed to the moving-coil speaker through a matching transformer.

A Drydex type S49 battery supplies both H.T. and grid bias, while low tension is obtained from a two-volt 20 amp. hour accumulator, an "Economic," supplied with the set.

The condenser C7, shown in the circuit in the H.F. coils, consists of twisted wire and is part of the coil assembly.

Removing Chassis.—Remove the three knobs from the front of the cabinet and the four bolts from underneath. After unsoldering the speaker leads, the chassis may be completely removed.



The Alba 210 by A. J. Balcombe is a straight battery three covering medium and long waves.

VALVE READINGS

No signal. No reaction. New batteries.

V.	Type.	Electrode.	Volts.	Ma.
1	(All Mullard) SP2 met. (7)	Anode ..	107	1.7
		Screen ..	107	.65
2	PM1HL met.(4)	Anode ..	63	1.6
3	PM22A (5) ..	Anode ..	102	4.25
		Screen ..	107	1.1

ALIGNMENT NOTES

All adjustments to this receiver are made on the medium wave band. A signal of about 250 metres should be injected at the aerial and earth terminals, the tuning pointer set at this index mark on the scale, and T1 and T2 adjusted for maximum reading on an output meter.

An alternative method is to tune in a known transmission and adjust T1 until the pointer agrees with the station name on the dial, and then adjust T2 for maximum output.

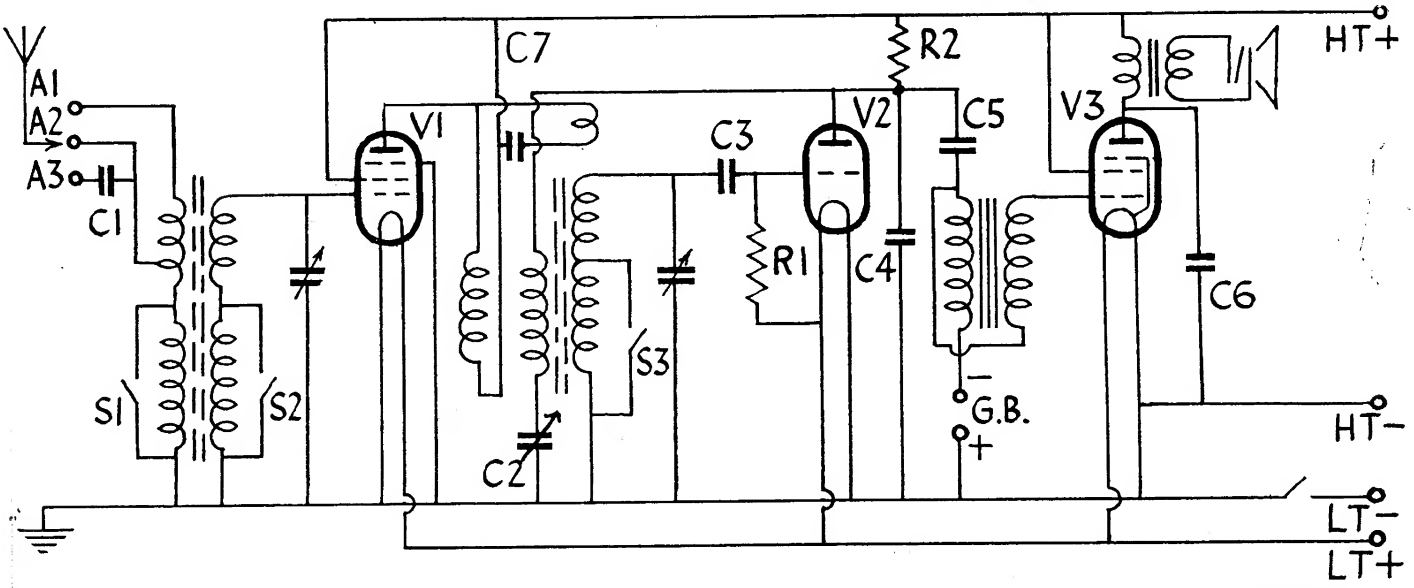
In either case the reaction control should be at minimum.

Diagrams of the chassis lay-out of the 210 are given on the next page; all other data are on this page.

The following table gives both condenser and resistance values.

COMPONENTS

C.	Purpose.	Mfds.
1	Series aerial	.00015
2	Reaction	.0003
3	V2 grid..	.00015
4	H.F. filter	.00015
5	L.F. coupling	.1
6	Pentode compensating ..	.005
7	H.F. coupling	—
R.		Ohms.
1	V2 grid leak	2 meg.
2	V2 anode load	25,000



A straightforward circuit is used for the Alba 210. The condenser C7 consists of twisted wires; it is part of the coil assembly. Both condenser and resistance values are given in the table of components on this page.

A1

ALBA 210 BATTERY THREE—*Chassis Layouts*